STATE OF INDIANA

STREAM POLLUTION CONTROL BOARD

INDIANAPOLIS 46206

1330 West Michigan Street
P. O. Box 1964

JC
10/19/83

May 13, 1983

(M)

(S)

VIA CERTIFIED MAIL

Dr. P. X. Masciantonio
Vice President-Energy and Environment
United States Steel Corporation
600 Grant Street
Pittsburgh, PA 15230

Dear Doctor Masciantonio:

Re: NPDES Permit No. IN 0000281
U.S. Steel Corporation
Gary Works & Tubing Specialties

Your application for a National Pollutant Discharge Elimination System (NPDES) Permit has been processed in accordance with Sections 402 and 405 of the Federal Water Pollution Control Act as amended by PL 92-500 and PL 95-217 (33 U.S.C. 1251, et seq.), and Public Law 100, Acts of 1972, as amended (IC 13-7, et seq., the "Environmental Management Act"). The enclosed NPDES Permit covers your facility which manufactures iron, steel, and coke products and that discharges into Lake Michigan and the Grand Calumet River. All discharges from this facility shall be consistent with the terms and conditions of this permit.

One condition which needs to be clearly understood concerns violation of the effluent limitations in the permit. Exceeding the limitations constitutes a violation of the permit and may subject the permittee to criminal or civil penalties. (See Part II A1 and B6.) It is therefore urged that your office and treatment operator understand this part of the permit.

It should also be noted that any appeal must be filed under procedures outlined in 330 IAC 5-16. The appeal must be initiated by filing with the Stream Pollution Control Board a request for an adjudicatory hearing within 30 days of receipt of this letter.

13794

INDIANA STREAM POLLUTION CONTROL BOARD
AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended by P.L. 92-500 and P.L. 95-217 (33 U.S.C. 1251 et seq., the "Act"), and Public Law 100, Acts of 1972, as amended (IC 13-7, et seq., the "Environmental Management Act"),

UNITED STATES STEEL CORPORATION (USSC)

is authorized to discharge from its Gary Works and Tubing Specialties facility, which produces iron and steel products, coke, coal chemicals, seamless tube rounds, and steel foundry products and is located in Gary, Indiana, to receiving waters named the Grand Calumet River and Lake Michigan in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I and II hereof.

The permit shall become effective on June 1, 1983.

This permit and the authorization to discharge shall expire at midnight May 31, 1988. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Indiana Stream Pollution Control Board no later than 180 days prior to the date of expiration.

Signed this 13 day of May, 1983, for the Indiana Stream Pollution Control Board.

L. C. Bartram
Technical Secretary

13795

If you have any questions, please contact Mr. Larry J. Kane at 317/633-0761.

Very truly yours,

Earl A. Bohner
Technical Secretary

LJK/sck
Enclosures
cc: Chief, Permit Section, U.S. EPA, Region V
Lake County Health Department
J. David Moniot
Lake Michigan Federation

13796

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date, and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 002 (GW-1).

Such discharge shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow (MGD)	--	--	--	--	Weekly	One Measurement
Temperature	--	--	--	(1)	Weekly	One Measurement
Oil & Grease	--	--	--	--	Weekly	3 Grabs/24 Hrs.
Ammonia-N	(2)	(2)	--	--	Weekly	24-Hr. Comp.
Cyanide-Total	(2)	(2)	--	--	Weekly	24-Hr. Comp.
Phenols (4AAP)*	(2)	(2)	--	--	Weekly	24-Hr. Comp.
Iron-Total**	--	--	--	--	Monthly	24-Hr. Comp.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly by a grab sample.

There shall be no discharge of floating solids or visible foam except where USSC demonstrates that concentrations are no greater than that which are found in the influent, where receiving water is the same source as influent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at a point representative of the discharge prior to entry into the Grand Calumet River.

(1) See page 17
(2) See page 15

*The term "phenols (4AAP)" refers to that group of phenolic compounds amenable to analysis by distillation (in conjunction with exposure to 4-aminoantipyrine) followed by colorimetry.

**The effluent shall be sampled monthly for three consecutive months only, commencing with the effective date of this permit, for the parameter of total iron.

13797

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning on the effective date and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 601 (Tube Works Filtration Plant*).

Such discharge shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow (MGD)	--	--	--	--	Continuous	Totalized
Total Suspended Solids	90(197)	239(527)	--	--	Weekly	24-Hr. Comp.
Oil & Grease	--	60(132)	--	--	Weekly	3 Grabs/24 Hr.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the filtration plant prior to mixing with any other wastewaters.

*The effluent from the Tube Works Filtration Plant ultimately discharges from outfall 002.

13798

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning on the effective date and lasting through the expiration date, USSC is authorized to discharge from outfall(s) 007 (GW-2) and 010 (GW-3).

Such discharges shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements* Measurement Frequency	Monitoring Requirements* Sample Type
Flow (MGD)	--	--	--	--	Weekly	One Measurement
Temperature	--	--	--	(1)	Weekly	One Measurement
Oil & Grease	--	--	--	10 mg/l	Weekly	3 Grabs/24 Hrs.
Ammonia-N	(2)	(2)	--	--	Weekly	24-Hr. Comp.
Cyanide-Total	(2)	(2)	--	--	Weekly	24-Hr. Comp.
Phenols (4AAP)	(2)	(2)	--	--	Weekly	24-Hr. Comp.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly by grab sample.

There shall be no discharge of floating solids or visible foam except where USSC demonstrates that concentrations are no greater than that which are found in the influent, where receiving water is the same source as influent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at points representative of the discharges prior to entry into the Grand Calumet River.

(1) See page 17
(2) See page 15

*See page 21 for additional monitoring requirements for outfall 007 only.

13799

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning on the effective date of this permit and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 017 (GW-5).

Such discharge shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow (MGD)	--	--	--	--	Continuous	Meas. Recorded
Temperature	--	--	--	(1)	Continuous	Meas. Recorded
Suspended Solids	227(500)	340(750)	--	--	Daily	*24-Hr. Comp.
Oil & Grease	--	--	--	10 mg/l	Daily	3 Grabs/24 Hrs.
Ammonia-N (2)	125 (274)	374 (823)	--	--	Daily	*24-Hr. Comp.
Cyanide-T (2)	12.45(27.4)	25.0 (54.9)	--	--	Daily	*24-Hr. Comp.
Phenols(4AAP) (2)	1.25(2.74)	2.5 (5.49)	--	--	Daily	*24-Hr. Comp.
Zinc	3.74(8.23)	7.48 (16.46)	--	--	Daily	*24-Hr. Comp.
TRC**	--	6.23(13.7)	--	--	Daily	3 Grabs/24 Hrs.
Lead	3.13(6.87)	6.26(13.74)	--	--	Daily	*24-Hr. Comp.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be continuously monitored and recorded.

There shall be no discharge of floating solids or visible foam except where USSC demonstrates that concentrations are no greater than that which are found in the influent, where receiving water is the same source as influent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at a point representative of the discharge prior to entry into the Grand Calumet River.

*Flow Proportioned: Minimum of six samples taken at equally spaced time intervals during a 24-hour period.

**TRC means "Total Residual Chlorine."

(1) See page 17
(2) See page 15

13800

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. During the period beginning on the effective date of this permit and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 028 (GW-10A) and 030 (GW-11A).

Such discharges shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow (MGD)	--	--	--	--	3 X Weekly	One Measurement
Temperature	--	--	--	(1)	Weekly	One Measurement
Total Suspended Solids (3)	4928(10842)	10342(22800)	--	--	3 X Weekly	24-Hr. Comp.
Oil & Grease (3)	--	2930(6460)	--	--	3 X Weekly	3 Grabs/24 Hrs.
Phenols (4AAP)	--	--	--	--	2 X Monthly	24-Hr. Comp.
Fluoride (4)	--	--	--	--	Monthly	24-Hr. Comp.
Mercury-Total*	--	--	--	--	Monthly	24-Hr. Comp.
Iron-Total**	--	--	--	--	Monthly	24-Hr. Comp.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly by grab sample.

There shall be no discharge of floating solids or visible foam except where USSC demonstrates that concentrations are no greater than that which are found in the influent, where receiving water is the same source as influent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at points representative of the discharges prior to entry into the Grand Calumet River.

(1) See page 17

(3) Determination of the mass loadings discharged from the Terminal Lagoons is to be made as follows:

The effluents from each of the two outfalls are to be monitored in conjunction with one another. The mass loading for each outfall is to be determined from its respective flow rate and effluent concentration. The mass loading from the Terminal Lagoons is the sum of the loading from each of the two outfalls.

(4) Outfall 030 only.

*The effluent from Outfall 030 only shall be sampled monthly for three consecutive months only, commencing with the effective date, for the parameter of total mercury.

**The effluent shall be sampled monthly for three consecutive months only, commencing with July I, 1984, for the parameter of total iron.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

6. During the period beginning July 1, 1984, and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 603 (BOP Treatment and Continuous Casting Treatment*).

Such discharge shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow (MGD)	--	--	--	--	Continuous	Totalized
Lead	3.3 (7.28)	9.9(21.79)	--	--	5/7 Days	24-Hr. Comp.
Zinc	4.96(10.91)	14.9(32.71)	--	--	5/7 Days	24 Hr. Comp.

Samples taken in compliance with the monitoring requirements specified above shall be taken at a point representative of the combined discharge from the two treatment facilities prior to mixing with any other wastewaters.

*The effluent from internal outfall 603 ultimately is discharged from outfalls 028 and 030.

13802

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

7. During the period beginning on the effective date of this permit and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 034 (ST-17).

Such discharge shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow (MGD)	--	--	--	--	Weekly	One Measurement
Temperature	--	--	--	(1)	Weekly	One Measurement
Oil & Grease	--	--	--	--	Weekly	3 Grabs/24 Hrs.
Ammonia-N	--	--	--	--	2 X Monthly	24-Hr. Comp.
Cyanide-T	--	--	--	--	2 X Monthly	24-Hr. Comp.
Phenols (4AAP)	(2)	(2)	--	--	Weekly	24-Hr. Comp.
Chloride	--	--	--	--	Monthly	24-Hr. Comp.
Sulfate	--	--	--	--	Monthly	24-Hr. Comp.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly by a grab sample.

There shall be no discharge of floating solids or visible foam except where USSC demonstrates that concentrations are no greater than that which are found in the influent, where receiving water is the same source as influent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at points representative of the discharges prior to entry into the Grand Calumet River.

(1) See page 17
(2) See page 15

13803

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

8. During the period beginning on the effective date of this permit and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 604 (Terminal Treatment Plant)*.

Such discharge shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements** Measurement Frequency	Monitoring Requirements** Sample Type
Flow (MGD)	--	--	--	--	Continuous	Totalized
Total Suspended Solids	1624(3572)	3692(8123)	--	--	5/7 Days	24-Hr. Comp.
Oil & Grease	--	1180(2600)	--	--	5/7 Days	3 Grabs/24 Hrs.
Zinc	11.0(24.1)	34.9(76.8)	--	--	5/7 Days	24-Hr. Comp.
Chromium-Total	9.8(21.5)	31.7(69.7)	--	--	5/7 Days	24-Hr. Comp.
Lead	8.4(18.4)	24.9(54.8)	--	--	5/7 Days	24-Hr. Comp.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the Terminal Treatment Plant prior to mixing with any other wastewaters.

*The effluent from the Terminal Treatment Plant is ultimately discharged from outfall 034.

**See Pages 21 and 22 for additional monitoring requirements.

13804

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

9. During the period beginning October 1, 1983, and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 605 (84"HSM Filtration Plant)*.

Such discharge shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow (MGD)	--	--	--	--	Continuous	Totalized
Total Suspended Solids	330(725)	989(2175)	--	--	5/7 Days	24-Hr. Comp.
Oil & Grease	--	659(1450)	--	--	5/7 Days	3 Grabs/24 Hrs

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the Filtration Plant prior to mixing with any other wastewaters.

*The effluent from internal outfall 605 ultimately discharges from outfall 034.

13805

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

10. During the period beginning on the effective date of this permit and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 001, 003, 004, 023, and 026.

Such discharges shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirement Measurement Frequency	Monitoring Requirement Sample Type
Flow (MGD)	--	--	--	--	Monthly	One 24-Hr. Est.

These discharges are limited solely to non-contact cooling water, steam condensate, and storm water free from process and other wastewater discharges.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored monthly by grab samples.

There shall be no discharge of floating solids or visible foam except where USSC demonstrates that concentrations are no greater than that which are found in the influent, where receiving water is the same source as influent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at points representative of the discharges prior to entry into the Grand Calumet River.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

11. During the period beginning on the effective date of this permit and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 005(GW-1A), 015(GW-4), 018(GW-6), 019(GW-7), 020 (GW-7A), 021(GW-9), 032(GW-13), and 033(ST-14).

Such discharges shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements** Measurement Frequency	Monitoring Requirements** Sample Type
Flow (MGD)	--	--	--	--	Weekly	One Measurement
Temperature	--	--	--	(1)	Weekly	One Measurement
Oil & Grease	--	--	--	--	Weekly	3 Grabs/24 Hrs.
Ammonia-N (5)	--	--	--	--	Weekly	24-Hr. Comp.
Phenols (4AAP)(6)	--	--	--	--	2 X Monthly	24-Hr. Comp.
Iron-Total***	--	--	--	--	Monthly	24-Hr. Comp.

*This discharge is limited solely to noncontact cooling and storm water.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly by a grab sample.

There shall be no discharge of floating solids or visible foam except where USSC demonstrates that concentrations are no greater than that which are found in the influent, where receiving water is the same source as influent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at points representative of the discharges prior to entry into Grand Calumet River.

(1) See page 17
(5) Outfall 018 only
(6) Outfalls 018, 019, and 020 only.

13807

*Certain of these outfalls may contain contamination from process wastewaters. If significant contamination is found to be consistently present at one or more outfalls, this permit may be modified, after notice and opportunity for hearing, to establish appropriate effluent limitations at such outfalls.

**See page 21 for additional monitoring requirements for outfall 018 only.

***The effluent from outfall 020 shall be sampled monthly only for three consecutive months, commencing July 1, 1984, for the parameter of total iron.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

12. During the period beginning on the effective date of this permit and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 035(GW-L-1), 036(GW-L-1A), 037(ST-L-5), and 038(ST-L-2).

Such discharges shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirement Measurement Frequency	Monitoring Requirement Sample Type
Flow (MGD)	--	--	--	--	Weekly	One Measurement
Temperature	--	--	--	(1)	Weekly	One Measurement
Oil & Grease	--	--	--	--	Weekly	3 Grabs/24 Hrs.

These discharges are limited solely to noncontact cooling and storm water free from process and other wastewater discharges.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly by a grab sample.

There shall be no discharge of floating solids or visible foam except where USSC demonstrates that concentrations are no greater than that which are found in the influent, where receiving water is the same source as influent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at points representative of the discharges prior to entry into Lake Michigan.

(1) See Page 17.

13808

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

13. During the period beginning on the effective date and lasting through the expiration date, USSC isauthorized to discharge from outfall(s) serial number(s) 039 (ST-L-6).

Such discharge shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirement Measurement Frequency	Monitoring Requirement Sample Type
Flow (MGD)	--	--	--	--	Weekly	One Measurement
Temperature	--	--	--	(1)	Weekly	One Measurement
Oil & Grease	--	--	--	--	Weekly	3 grabs/24 Hrs.

This discharge is limited solely to noncontact cooling and storm water free from process and other wastewater discharges.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly by a grab sample.

There shall be no discharge of floating solids or visible foam except where USSC demonstrates that concentrations are no greater than that which are found in the influent, where receiving water is the same source as influent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at a point representative of the discharge prior to entry into Lake Michigan.

(1) See page 17

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

14. (Wasteload Allocation Parameters) During the period beginning on the effective date of this permit and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) 002, 007, 010, 017, and 034.

The total discharge from all such designated outfalls shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow (MGD)	--	--	--	--	For monitoring requirements see specific outfalls.*	
Ammonia-N (7)	669.5 (1476)	1318 (2906)	--	--		
Cyanide-T (7)	20.6 (45.5)	40.0 (88.2)	--	--		
Phenols (4AAP)	17.2 (38)	28.6 (63)	--	--		

Additional limiting requirements for each of the above-referenced discharges are presented on pages 2 through 10.

*The weekly samples taken from the above-referenced outfalls for monitoring of the parameters limited under this paragraph shall all be taken on the same day of the week so that Daily Maximum values for the combined outfalls can be properly calculated.

(7) The discharge from outfall 034 is not included in the calculation of the total combined discharge of Ammonia-N and Cyanide-T to which the effluent limitations of this page apply.

13810

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

15. During the period beginning on the effective date of this permit and lasting through the expiration date, USSC is authorized to discharge from outfall(s) serial number(s) IN-9.*

Such discharge shall be limited and monitored by USSC as specified below:

Discharge Limitations

Effluent Characteristic	kg/day (lbs/day) Daily Average	kg/day (lbs/day) Daily Maximum	Other Limitations Daily Average	Other Limitations Daily Maximum	Monitoring Requirement Measurement Frequency	Monitoring Requirement Sample Type
Flow (MGD)	--	--	--	--	Monthly	Total gals. inject.
Injection Pressure	--	--	--	--	Monthly	Maximum
Annular Pressure	--	--	--	--	Monthly	Maximum
Temperature	--	--	--	--	Monthly	Measurement
Iron (dissolved)	--	--	--	--	Monthly	Grab
Sulfate	--	--	--	--	Monthly	Grab
Free Acid	--	--	--	--	Monthly	Grab

The quantity of material injected into the deep well shall not exceed the design flow of 0.43 MGD.

*USSC shall discharge to the deep injection well only waste pickling liquor.

13811

16. THERMAL DISCHARGES

USSC conducted and has submitted a "Thermal Discharge Demonstration" pursuant to Section 316(a) of the "Clean Water Act" for its discharges to Lake Michigan and the Grand Calumet River. The Indiana Stream Pollution Control Board and the U.S. EPA have reviewed the "Thermal Discharge Demonstration" and concluded that the thermal discharges present at the time of the demonstration would assure the protection and propagation of a balanced indigenous population of fish, shellfish, and wildlife in and on Lake Michigan and the Grand Calumet River (commensurate with the character of the sources of the river).

Permit application flow data and discharge monitoring data show a decrease in the discharge but no change in discharge temperature from the time of the demonstration. Therefore, no additional thermal reductions are required for either the Lake Michigan or the Grand Calumet River discharges.

Imposition of thermal limitations or the need for another Thermal Demonstration may result from any future revision in applicable water quality standards or from a Permit Modification Request due to production changes which would result in an increased thermal discharge.

B. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

The permittee shall submit discharge monitoring reports (DMR-1 Form) to the Indiana Stream Pollution Control Board containing results obtained during each month and shall be postmarked no later than the 28th day of the month following each completed monitoring period. The first report shall be submitted by the 28th day of the month following the month in which the permit becomes effective.

The monitoring reports are to be submitted quarterly to the Regional Administrator.

3. Definitions

a. Daily Average

(1) Weight Basis - The "daily average" discharge means the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.

(2) Concentration Basis - The "daily average" concentration means the arithmetic average (proportional to flow) of all daily determinations of concentration made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during the calendar day.

b. "Daily Maximum" Discharge

(1) Weight Basis - The "daily maximum" discharge means the total discharge by weight during any calendar day.

(2) Concentration Basis - The "daily maximum" concentration means the daily determination of concentration for any calendar day.

c. 24-Hour Composite Sample--Consists of at least three individual, equal-volume samples of wastewater which are taken at equally spaced time intervals during a 24-hour period and which are combined prior to analyses.

d. Three Grabs Per 24 Hours (Oil & Grease)--Three individual samples taken at equally spaced time intervals during a 24-hour period. Each sample is individually analyzed and the arithmetic mean of the concentrations reported as the value for the 24-hour period.

e. Concentration--The weight of any given material present in a unit volume of liquid. Concentration values shall be expressed in milligrams per liter (mg/l).

f. Net Concentration--The difference between the concentration of a given substance in a sample taken of the discharge and the concentration of the same substance in a sample taken at the intake which supplies water to the given discharge.

g. The Regional Administrator is defined as the Region V Administrator, U.S. EPA, located at 230 South Dearborn Street, Chicago, Illinois 60604.

h. The Indiana Stream Pollution Control Board is located at the following address: 1330 West Michigan Street, Indianapolis, Indiana 46206.

4. Test Procedures

Test procedures for analysis of pollutants shall conform to regulations published pursuant to Section 304(h) of the Act, the most recent edition of "Standard Methods for the Examination of Water and Wastewater," or other methods approved by the Indiana Stream Pollution Control Board, under which such procedures may be required.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling;

b. The dates the analyses were performed;

c. The person(s) who performed the analyses;

d. The analytical techniques or methods used; and

e. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Indiana Stream Pollution Control Board Monthly Monitoring Report. Such increased frequency shall also be indicated.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years, or longer, if requested by the Regional Administrator or the Indiana Stream Pollution Control Board.

D. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

   a. For 84" HSM Filtration Plant (Outfall 605)
   Compliance attainment by . . . . . .October 1, 1983

   b. For BOP and Continuous Caster Treatment (Outfall 603)
   Compliance attainment by . . . . . July 1, 1984

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance to the Indiana Stream Pollution Control Board. The notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

D. SPECIAL CONDITIONS

1. Outfalls 007 (GW-2) and 018 (GW-6)--Characterization Survey and Monitoring Program.

The permittee shall conduct a characterization survey for the purpose of minimizing to the maximum extent practical, the discharge of cokemaking process wastewater pollutants from Outfall 007 and iron making process wastewater pollutants from Outfall 018. The survey program shall consist of a six-month period beginning on the effecitve date of this permit during which the permittee will endeavor to identify all significant sources of contaminated wastewaters discharged from Outfalls 007 and 018, will monitor all such identified sources, and, to the extent practicable, will remove, or reduce through operation and maintenance procedures, the discharge of process wastewater pollutants to those outfalls. The survey program shall be followed by a twelve week effluent monitoring program for each outfall as set out below:

	Frequency	Sample Type
Flow	5/week	24-Hour Total
Total Suspended solids	"	24-Hour Composite
Oil and Grease	"	3 Grabs/24 Hours
Ammonia-N	"	24-Hour Composite
Total Cyanide	"	24-Hour Composite
Phenols (4AAP)	"	24-Hour Composite

Within 30 days from completion of the monitoring program, the permittee shall submit a report to the Indiana Stream Pollution Control Board (SPCB) describing the actions taken during the characterization survey program to reduce or eliminate the discharge of coke plant process wastewater pollutants to Outfall 007 and iron making process wastewater pollutants to Outfall 018 and including all of the data from the twelve week monitoring program. The daily mass discharge of each pollutant shall be reported for each outfall. Based on the results of this report, this permit may be modified, after public notice and opportunity for public hearing, to revise monitoring requirements and/or effluent limitations and to extend the inspection and pollutant-minimization practices as appropriate.

2. Station 604 Terminal Treatment Plant--Organic Pollutant Monitoring Study

Effluent limitations for naphthalene and tetrachloroethylene applicable to cold rolling operations have been deferred pending completion of the following study to be conducted by the permittee within two months from the effective date of this permit. The purpose of the study is to determine which toxic organic pollutants are present in cold rolling wastwaters at the Gary Works and whether these pollutants are adequately treated in the Terminal Treatment Plant.

The permittee shall monitor the influent to the Terminal Treatment Plant at the primary mixers (prior to input of the electro-galvanizing wastewater) and the effluent of the Terminal Treatment Plant prior to mixing with other process or cooling waters for a minimum of six days during a two-month period. Two of the six daily samples shall be taken during periods in which the cold rolling mills or the highest typical fraction of them are undergoing maintenance. The remaining four daily samples shall be taken during periods of cold rolling production. For each monitoring day, the compositing and sampling period for the untreated wastewater and final effluent samples shall be adjusted according to the level of cold rolling production (e.g., 8-hour composites, 16-hour composites, 24-hour composites). The permittee will take into account the hydraulic retention time of the Terminal Treatment Plant at its then current flow rate and commence the composite sampling of the Terminal Treatment Plant effluent accordingly. The permittee shall conduct sampling surveys on days or operating turns when maintenance (rolling solution changes, solvent cleaning, etc.) is performed. As a minimum, the permittee shall monitor for the pollutants listed on the following table and shall also quantitatively identify all other compounds detected by a GC/MS scan of volatile, acid, and base/neutral organic compound fractions. Within ninety days after completion of the monitoring program, the permittee shall submit a report of the monitoring program to the SPCB including the results of the monitoring program. The mass discharge of each pollutant detected at each location shall be reported for each monitoring day.

Based upon the results of the monitoring study, this permit may be modified, after public notice and opportunity for public hearing, to establish additional monitoring requirements and/or effluent limitations, as appropriate.

COLD ROLLING OPERATIONS
TOXIC ORGANIC POLLUTANT SURVEY

Pollutant

	Total Suspended Solids	057	2-Nitrophenol
	Oil and Grease	065	Phenol
	pH	085	Tetrachloroethylene
004	Benzene	087	Trichloroethylene
055	Naphthalene		

Sample Type

Flow	Total Over Sampling Period
Total Suspended Solids	Composite Over Sampling Period
Base Neutral Organic Pollutants	Composite Over Sampling Period
Acid Fraction Organic Pollutants	Composite Over Sampling Period
Oil & Grease	2 or 3 Grab Samples per Sampling Period
pH	2 or 3 Grab Samples per Sampling Period
Volatile Organic Pollutants	2 or 3 Grab Samples per Sampling Period

WPC 14U/h
5/5/83

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PART II
STANDARD CONDITIONS FOR NPDES PERMITS
FOR INDUSTRIAL FACILITIES

SECTION A. GENERAL CONDITIONS

1. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and the Indiana Environmental Management Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

2. Penalties for Violations of Permit Conditions

Pursuant to the Indiana Environmental Management Act, any person who violates a permit condition implementing sections 301, 302, 306, 307, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25;000 per day of violation, or by imprisonment for not more than 1 year or both. If the conviction is for a violation committed after a first conviction of such person under this provision, punishment shall be a fine of not more than fifty thousand dollars ($50,000) per day of violation, or by imprisonment for not more than two (2) years, or both.

Except as provided in permit conditions on "Bypassing," Section B, Paragraph 2 and "Upsets," Section B, Paragraph 3, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit.

4. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:

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a. Violation of any terms or conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of (i) a request by the permittee for a permit modification, revocation and reissuance, or termination, or (ii) a notification of planned changes or anticipated noncompliance does not stay any permit condition.

5. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

7. Transfers

This permit is nontransferable to any person except after notice to the Director pursuant to Regulation 330 IAC 5-2-5(c). The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

8. Toxic Pollutants

Notwithstanding Paragraph A-4, above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition.

The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

9. Containment Facilities

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When cyanide or cyanogen compounds are used in any of the processes at this facility, the permittee shall provide approved facilities for the containment of any losses of these compounds in accordance with the requirements of Stream Pollution Control Board Regulation 330 IAC 1-2.

10. Operator Certification

The permittee shall have the waste treatment facilities under the direct supervision of an operator certified by the Environmental Management Board as required by IC 13-1-6.

11. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

12. Property Rights

The issuance of this permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or an invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

13. Severability

The provisions of this permit are severable and, if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

14. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

15. Construction Permit

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The permittee shall not construct, install, or modify any water pollution control facility without a valid construction permit issued by the Indiana Stream Pollution Control Board pursuant to 330 IAC 3.1.

SECTION B. MANAGEMENT REQUIREMENTS

1. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and efficiently operate all facilities and systems for wastewater collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of this permit.

2. Bypass of Treatment Facilities

a. Definitions:

(1) "Bypass" means the intentional diversion of a waste stream from any portion of a treatment facility normally utilized for treatment of the waste stream.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production at the permittee's facility.

b. (Prohibition of Bypass) Bypass which causes or is likely to cause applicable effluent limitations to be exceeded is prohibited unless the following three conditions are met:

(1) Bypass is unavoidable to prevent loss of life, personal injury or severe property damage;

(2) There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal period of equipment down-time; and

(3) The permittee submits notice of an unanticipated bypass to the Director within 24 hours of becoming aware of the bypass (if this information is provided orally, a written submission must be provided within five days). Where the permittee knows or should have known in advance of the need for a bypass, this prior notification shall be submitted for approval to the Director, if possible, at least ten days before the date of the bypass.

c. An anticipated bypass which meets the three criteria of Paragraph b of this subsection may be allowed under conditions determined to be necessary by the Director to minimize any adverse effects.

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3. Upset Conditions

a. Definition: "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable

control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. (Effect of an upset) An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c of this subsection are met.

c. (Conditions necessary for a demonstration of upset) A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:

(1) An upset occurred and the permittee has identified the specific cause(s) of the upset, if possible;

(2) The permitted facility was at the time being operated in compliance with proper operation and maintenance procedures; and

(3) The permittee complied with any remedial measures required under Paragraph A.3 of this Part.

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters and to be in compliance with all Indiana statutes and regulations relative to liquid and/or solid waste disposal.

SECTION C. REPORTING REQUIREMENTS

1. Planned Changes in Facility or Discharge

Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by advance notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to revise existing pollutant limitations and/or to specify and limit any pollutants not previously limited.

2. Monitoring Reports

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Monitoring results shall be reported at the intervals and in the form specified in Part I.B.2.

3. Compliance Schedules

Reports of compliance or noncompliance with interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

4. Twenty-Four Hour Reporting

The permittee shall report information on the following types of noncompliance within 24 hours from the time permittee becomes aware of such noncompliance:

a. Any unanticipated bypass which exceeds any effluent limitation in the permit;

b. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours; and

c. Any noncompliance which may pose a significant danger to human health or the environment.

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected the anticipated time it is expected to continue; and steps taken or planned to reduce and eliminate the noncompliance and prevent its recurrence. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

5. Other Noncompliance

The permittee shall report any instance of noncompliance not reported under Paragraph 2, 4, or 5 of this Section at the time the pertinent Discharge Monitoring Report is submitted. The report shall contain the information specified in Paragraph 5 of this Section.

6. Other Information

Where the permittee becomes aware that he failed to submit any relevant facts or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit such facts or corrected information.

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7. Changes in Discharge of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

a. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or

(4) The level established in Part III of the permit by the Director.

b. That it has begun or expects to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

8. Signatory Requirements

a. All reports required by the permit and other information requested by the Director shall be signed and certified by a person described below or by a duly authorized representative of that person:

(1) For a corporation: by a principal executive officer of at least the level of vice-president (including a person who is not a vice-president but performs similar policy-making functions for the corporation);

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a Federal, State, or local governmental body or an agency or political subdivision thereof: by either a principal executive officer or ranking elected official.

b. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above.

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equilavent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The authorization is submitted to the Director.

c. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified

personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

9. Availability of Reports

Except for data determined to be confidential under Board Regulation 330 IAC 5-1.5, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Indiana Stream Pollution Control Board and the Regional Administrator. As required by the Clean Water Act, permit applications, permits, and effluent data shall not be considered confidential.

10. Penalties for Falsification of Reports

The Indiana Environmental Management Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.